

● Curriculum Vitae (CV) ●

Dr. Mahesh Mahadev Kamble



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Mulshi, Dist.- Pune -412115. Maharashtra

Email: mmkamble14@gmail.com, **mobile:** +91 (0) 9595661945

(Permanent Address: A/P - Mahim, Tal- Sangola, Dist- Solapur.
PIN-413306. Maharashtra (INDIA)

EDUCATIONAL QUALIFICATION:

NET/ SET:	Qualified SET examination (November 2011) conducted by U.G.C. and University of Pune for lectureship in Maharashtra and Goa.
Doctor of Philosophy (Ph. D.) in Physics (2016):	At Department of Physics, Savitribai Phule, Pune University, Pune
Title of Thesis:	Synthesis and study of hydrogenated nanocrystalline silicon and its alloy by hot wire chemical vapor deposition for solar cell applications.
Master of Philosophy (M.Phil.) in Physics (2011):	At Department of Physics, Savitribai Phule Pune University, Pune Grade obtained "O"
Title of Thesis:	Synthesis and study of nano-crystallites embedded amorphous silicon thin films prepared by hot wire chemical vapor deposition method.
Master of Science (Physics) (2009):	At Department of Physics, University of Pune, India Class Obtained: First Class (4.0 G.P.A Out of 6.0)
Bachelor of Science (Physics) (2007)	Solapur University, Solapur. Class Obtained: First Class with distinction

TEACHING EXPERIENCE:

- ❖ M.Sc. electronics at Department of Electronic Science, University of Pune, Pune during the first semester of M.Sc.during 2011-12.
- ❖ B. Sc. Physics at Anantrao Pawar College Pirangut from 25th September 2012 to till date.

AWARDS/FELLOWSHIPS:

- ❖ Junior Research Fellow of University Grant commission sponsored project at Department of Physics, University of Pune (1st June 2012 –24 September 2012)
- ❖ Project Assistant Fellowship of Department of Science and Technology sponsored project at Department of Physics, University of Pune (1st April 2010 -31thMay2012)
- ❖ Project Assistant Fellowship of centre for nanomaterials and quantum system sponsored project at Department of Physics, University of Pune (august 2009-march 2010).

Extra Curricular Activities:

- ❖ Worked as Coordinator of four day workshop on mobile repairing funded by Board of Student Welfare University of Pune organized by Anantrao Pawar College, Pirangut during 27th - 30th January 2014
- ❖ Worked as Coordinator of four day workshop on mobile repairing funded by Board of Student Welfare University of Pune organized by Anantrao Pawar College, Pirangut during 27th - 30th January 2015
- ❖ Worked as Coordinator of two days district level workshop on Laptop Repairing workshop funded by Board of Student Welfare University of Pune organized by Anantrao Pawar College, Pirangut organized two day” during 17th - 18th February 2016
- ❖ Worked as N.S.S. programme officer during the academic year 2017-18 to 2019-20 at Anantrao Pawar College, Pirangut.
- ❖ Working as College Examination Officer from academic year 2020-21 to till date

Curricular Activities:

- ❖ Worked as External senior supervisor for M.B.A. examination held in the month of Oct./Nov 2013 conducted by university of pune from 02/12/2013 to 12/12/2012
- ❖ Worked as assistant CAP director at Anantrao Pawar College, Pirangut for F.Y.B.Sc., F.Y.B.A., F.Y.B.Com., F.Y.B.Sc (Comp. Sci.) and F.Y. B.C.A. savitribai phule pune university theory examinations held in March/April 2016

LIST PUBLICATIONS:

A. Peer Reviewed International Journals:

- 1) Optical, Structural and Morphological Study of CdS Nanoparticles: Role of Sulphur Source
Mahesh M. Kamble, Sachin R. Rondhiya, Bharat R. Bade, Kiran B. Kore, Mamta P. Nasane, Nelson Y. Dzade, Adinath M. Funde, Sandesh R. Jadkar.
Nanomaterials and Energy (2020) 9 (1), 72-81
ISSN (print/online): 2045-9831/2045-984X, URL/DOI:
<http://dx.doi.org/10.1680/jnaen.19.00041>
- 2) Synthesis, characterization and study of cadmium sulphide (cds) films fabricated using chemical bath deposition method.
Mahesh Kamble, Bharat Bade, Sachin Rondiya, Subhash Pandharkar, Adinath Funde, Sandesh Jadkar
Journal of Emerging Technologies and Innovative Research (JETIR) May 2019, Volume 6, Issue 5, 74-78 <http://www.jetir.org/papers/JETIRCM06020.pdf>
- 3) Synthesis of cubic nanocrystalline silicon carbide (3C-SiC) films by HW-CVD method
Mahesh Kamble, Vaishali Waman, Azam Mayabadi, Adinath Funde, Vasant Sathe, T. Shripathi, Habib Pathan, Sandesh Jadkar
Silicon (2017) 9 (3), 421-429. ISSN (print/online): 1876-990X/1876-9918,
URL/DOI: <http://dx.doi.org/10.1007/s12633-015-9358-8>
- 4) Hydrogenated silicon-carbide (SiC:H) thin films prepared with high deposition rate by hot wire chemical vapor deposition (HW-CVD) method
M. M. Kamble, V. S. Waman, A. H. Mayabadi, S. S. Ghosh, B. B. Gabhale, S. R. Rondiya, A. V. Rokade, S. S. Khadtare, V. G. Sathe, T. Shripathi, H. M. Pathan, S. W. Gosavi, S. R. Jadkar
Journal of Coatings (2014) 2014, 905903- 905914. ISSN (print/online): 2356-7236/2314-6508 URL/DOI: <http://dx.doi.org/10.1155/2014/905903>
- 5) High growth rate a-SiC:H films using ethane carbon source by HW-CVD method
Mahesh M. Kamble, Vaishali S. Waman, Sanjay S. Ghosh, Azam Mayabadi, Vasant G. Sathe, T. Shripathi, and Sandesh R. Jadkar
Bulletin of Materials Science (2013), 36 (7), 1177-1185. ISSN(print/online): 0250-4707/0973-7669 URL/DOI: <http://dx.doi.org/10.1007/s12034-013-0604-7>
- 6) Synthesis of Hydrogenated Nanocrystalline Silicon Films by HW-CVD without Hydrogen Dilution of Silane

- M. M. Kamble**, Pramod M. R., V. S. Waman, A. M. Funde, V. G. Sathe, S. W. Gosavi, S.R. Jadkar
AIP Conf. Proc 1391 746-748 (2011) <https://aip.scitation.org/doi/10.1063/1.3643667>
- 7) Investigations of the structural, optoelectronic and band alignment properties of Cu₂ZnSnS₄ prepared by hot-injection method towards low-cost photovoltaic applications
 Bharat R. Bade, Sachin R. Rondiya, Yogesh A. Jadhav, Mahesh M. Kamble, Sunil V. Barma, Sagar B. Jathar, Mamta P. Nasane, Sandesh R. Jadkar, Adinath M. Funde, Nelson Y. Dzade
Journal of Alloys and Compounds 854, 157093 (13 pg) (2021)
- 8) Investigation of growth mechanism for highly oriented TiO₂ nanorods: the role of reaction time and annealing temperature
 Bharat R. Bade, Sachin Rondiya, Somnath R. Bhopale, Nelson Y. Dzade, **Mahesh M. Kamble**, Avinash Rokade, Mamta P. Nasane, Mahendra A. More, Sandesh R. Jadkar, Adinath M. Funde
SN Applied Sciences (2019) 1, 1073. ISSN (print/online): 2523-3963 /2523-3971
<https://link.springer.com/article/10.1007%2Fs42452-019-0978-2>
- 9) Evolution of microstructural properties of hydrogenated protocrystalline silicon (PC-Si:H) thin films deposited by hw-cvd
 V. S. Waman, **M. M. Kamble**, S. W. Gosavi, S. R. Jadkar **Journal of Emerging Technologies and Innovative Research (JETIR)** May 2019, Volume 6, Issue 5 65-69
<http://www.jetir.org/papers/JETIRCM06018.pdf>
- 10) The effect of thiourea quantity variation on structural and optical properties of cds films deposited using cbd technique
 Bharat Bade, **Mahesh Kamble**, Sachin Rondiya, Subhash Pandharkar, Kiran Kore, Haribhau Borate, Sandesh Jadkar, Adinath Funde JETIR May 2019, Volume 6, Issue 5 79-83 **Journal of Emerging Technologies and Innovative Research (JETIR)**
<http://www.jetir.org/papers/JETIRCM06020.pdf>
- 11) Effect of calcination on structural, morphological and photoelectrochemical performance of SnO₂/TiO₂ nanocomposite films for solar cells
 Azam Mayabadi, Amit Pawbake, Sachin Rondiya, Avinash Rokade, Ravindra Waykar, Rupali Kulkarni, Ashok Jadhavar, **Mahesh Kamble**, Bharat Gabhale, Vaishali Waman, Vasant Sathe, Habib Pathan, Sandesh Jadkar
Thin Solid Films (2015), 589, 493-502. ISSN(print/online): 0040-6090/1879-2731, URL/DOI: <http://dx.doi.org/10.1016/j.tsf.2015.06.020>
- 12) Effect of Xe dilution on structural, electrical and optical properties of nanocrystalline Si films deposited by HW-CVD method
 Vaishali S. Waman, Azam H. Mayabadi, **Mahesh M. Kamble**, Bharat B. Gabhale, Adinath M. Funde, Vasant G. Sathe, Habib M. Pathan, Sandesh R. Jadkar

- Advanced Materials Letters (2015)**, 6(9), 795-802., ISSN (print/online): 0976-961/0976-397X, URL/DOI: <https://www.vbripress.com/aml/articles/details/710> or <http://dx.doi.org/10.5185/amlett.2015.5902>
- 13)** Evolution of microstructure and opto-electrical properties in boron doped nc-Si:H films deposited by HW- CVD method
V.S. Waman, **M.M. Kamble**, S.S. Ghosh, A.H. Mayabadi, B.B. Gabhale, S.R. Rondiya, A.V. Rokade, S.S. Khadtare, V.G. Sathe, H.M. Pathan, S.W. Gosavi, S.R. Jadkar
Journal of Alloys and Compounds (2014), 585, 523–528. ISSN (print/online): 0925-8388/1873-4669, URL/DOI: <http://dx.doi.org/10.1016/j.jallcom.2013.09.172>
- 14)** Evolution of structural and optical properties of rutile TiO₂ thin films synthesized at room temperature by chemical bath deposition method.
A. H. Mayabadi, V. S. Waman, **M. M. Kamble**, S. S. Ghosh, B. B. Gabhale, S. R. Rondiya, A. V. Rokade, S. S. Khadtare, V. G. Sathe, H. M. Pathan, S. W. Gosavi, S. R. Jadkar
Journal of Physics and Chemistry of Solids (2014) 75 (2), 182–187.
ISSN(print/online): 0022-3697/1879-2553,
URL/DOI: <http://dx.doi.org/10.1016/j.jpics.2013.09.008>
- 15)** Influence of helium dilution of silane on microstructure and opto-electronic properties of hydrogenated nanocrystalline silicon (nc-Si:H) thin films deposited by HW-CVD
V. S. Waman, **M. M. Kamble**, S. S. Ghosh, R. R. Hawaldar, D. P. Amalnerkar, V. G. Sathe, S. W. Gosavi, S. R. Jadkar
Materials Research Bulletin (2012) 47 (11), 3445-3451 ISSN(print/online): 0025-5408/1873-4227, URL/DOI: <http://dx.doi.org/10.1016/j.materresbull.2012.07.008>
- 16)** Highly conducting phosphorous doped n-type nc-Si:H films by HW-CVD for c-Si heterojunction solar cell
Vaishali S. Waman, **Mahesh M. Kamble**, Sanjay S. Ghosh, Azam Mayabadi, Vasant. G. Sathe, Habib M. Pathan, Shashikant D. Shinde, Kiran P. Adhi and Sandesh R. Jadkar
RSC Advances (2012) 2 (26), 9873-9880. ISSN (print/online): 2045-547X/2046-2069, URL/DOI: <http://dx.doi.org/10.1039/c2ra21618c>
- 17)** Highly Conducting Phosphorous Doped nc-Si:H Thin Films Deposited at High Deposition Rate by Hot-Wire Chemical Vapor Deposition Method
V. S. Waman, **M. M. Kamble**, S. S. Ghosh, Azam Mayabadi, V. G. Sathe, D. P. Amalnerkar, H. M. Pathan, and S. R. Jadkar
Journal of Nanoscience and Nanotechnology (2012) 12(11), 8459-8466.
ISSN (print/online): 1533-4880/1533-4899,
URL/DOI: <http://dx.doi.org/10.1166/jnn.2012.6685>
- 18)** Boron doped nc-Si:H window layer prepared by HW-CVD for solar cell applications

Pramod M. R., **M. M. Kamble**, V. S. Waman, A. M. Funde, S. P. Gore, K. R. Patil, V. G. Sathe, S. W. Gosavi, S. R. Jadkar

International Journal of Modern Physics: Conference Series 6 521-526 (2012)

<https://www.worldscientific.com/doi/pdfplus/10.1142/S2010194512003716>

- 19)** Fine-Tuning of relative fraction of amorphous and crystalline phases in Si:H prepared by PE- CVD method
A. M. Funde, V. S. Waman, **M. M. Kamble**, Pramod M. R., V. G. Sathe, S. W. Gosavi, S. R. Jadkar
Energy Procedia (2012), 15, 229-239. ISSN (print/online): 1876-6102,
URL/DOI: <http://dx.doi.org/10.1016/j.egypro.2012.02.027>
- 20)** Bulk-heterojunction morphology control during spin coating: Modelling diffusion assisted phase separation
S. S. Ghosh, G. S. Lonkar, M. S. Mahajan, S. R. Jadkar, V. S. Waman. M. M. Kamble, V. Ganesan, and J. V. Sali
Applied Physics Letters (2012), 101 (17), 173305 ISSN (print/online): 0003-6951/1077-3118, URL/DOI: <http://dx.doi.org/10.1063/1.4761931>
- 21)** Influence of deposition parameters on microstructure and opto-electrical properties of hydrogenated nanocrystalline silicon films by HW-CVD
V. S. Waman, **M. M. Kamble**, Pramod M. R., S. P. Gore, A. M. Funde, R. R.Hawaldar, D. P. Amalnerkar, V. G. Sathe, S. W. Gosavi, S. R. Jadkar
Journal of Non-Crystalline Solids (2011) 357 (21), 3616-3622.
ISSN (print/online): 0022-3093/1873-4812,
URL/DOI: <http://dx.doi.org/10.1016/j.jnoncrysol.2011.07.002>
- 22)** Hydrogenated nanocrystalline silicon thin films by hot wire chemical method with varied process pressure
V. S. Waman, **M. M. Kamble**, Pramod M. R., A. M. Funde, R. R.Hawaldar, D. P. Amalnerkar, V. G. Sathe, S. W. Gosavi, S. R. Jadkar
Journal of Nanotechnology (2011), 2011, 242398-242407.
ISSN(print/online): 1687-9503/1687-9511,
URL/DOI: <http://dx.doi.org/10.1155/2011/242398>
- 23)** Nanostructured hydrogenated silicon films by hot wire chemical vapor deposition: The influence of substrate temperature on material properties
V. S. Waman, **M. M. Kamble**, Pramod M. R., A. M. Funde, V. G. Sathe, S. W. Gosavi, S. R. Jadkar.
Journal of Nano-and Electronic Physics (2011), 3 (1 PART3), 590-600.
ISSN(print/online): 2077-6772/2306-4277,

URL/DOI:

[http://jnep.sumdu.edu.ua/download/numbers/2011/1,%20Part%203/articles/jnep_2011_V3_N1\(Part3\)_590-600.pdf](http://jnep.sumdu.edu.ua/download/numbers/2011/1,%20Part%203/articles/jnep_2011_V3_N1(Part3)_590-600.pdf)

- 24) Structural and optical investigations of nc-Si:H thin films prepared by hot wire method
V. S. Waman, **M. M. Kamble**, Pramod M. R., A. M. Funde, V. G. Sathe, S. W. Gosavi, S. R. Jadkar
AIP Conf. Proc. 1391 155-157 (2011)
<https://aip.scitation.org/doi/abs/10.1063/1.3646809>
- 25) Boron doped p-type hydrogenated nanocrystalline silicon films by hot wire chemical vapor deposition
Pramod M. R., **M. M. Kamble**, V. S. Waman, S. P. Gore, G. R. Roze, A. M. Funde, V. G. Sathe, S. R. Jadkar
AIP Conf. Proc. 1391 517-519 (2011)
<https://aip.scitation.org/doi/abs/10.1063/1.3643596>
- 26) Inter-electrode separation induced amorphous-to-nanocrystalline transition of hydrogenated silicon prepared by capacitively coupled PE-CVD method.
A. M. Funde, V. S. Waman, **M. M. Kamble**, Pramod M. R., S. W. Gosavi and S. R. Jadkar,
Journal of Nano-and Electronic Physics (2011), 3 (1), 651-662.
ISSN (print/online): 2077-6772/2306-4277,
URL/DOI:
<http://search.proquest.com/openview/6e2024c2e9da64f76e17ab7df4a08c94/1?pq-origsite=gscholar>
- 27) Role of argon in hot wire chemical vapor deposition of hydrogenated nanocrystalline silicon thin films
N.A. Bakr, A.M. Funde, V.S. Waman, **M.M. Kamble**, R.R. Hawaldar, D.P. Amalnerkar, V.G. Sathe, S.W. Gosavi, S.R. Jadkar
Thin Solid Films (2011), 519 (11), 3501-3508 ISSN(print/online): 0040-6090/1879-2731,
URL/DOI: <http://dx.doi.org/10.1016/j.tsf.2011.01.105>
- 28) Influence of deposition pressure on structural, optical and electrical properties of nc-Si:H films deposited by HW-CVD
N.A. Bakr, A.M. Funde, V.S. Waman, **M.M. Kamble**, R.R. Hawaldar, D.P. Amalnerkar, V.G. Sathe, S.W. Gosavi, S.R. Jadkar
Journal of Physics and Chemistry of Solids (2011), 72 (6), 685-691.
ISSN(print/online): 0022-3697/1879-2553,
URL/DOI: <http://dx.doi.org/10.1016/j.jpcs.2011.02.019>

29) Determination of the optical parameters of a-Si:H thin films deposited by HW-CVD technique using transmission spectrum only

N.A. Bakr, A.M. Funde, V.S. Waman, **M.M. Kamble**, R.R. Hawaldar, D.P. Amalnerkar, V.G.Sathe, S.W. Gosavi, S.R. Jadkar

Pramana: Journal of Physics (2011) 76 (3), 519-531.

ISSN(print/online): 0304-4289/0973-7111,

URL/DOI: <http://dx.doi.org/10.1007/s12043-011-0024-4>

B. CONFERENCES/WORKSHOPS/SYMPOSIA:

- 1) International photovoltaic solar energy conference (IPSEC- 2015), Department of Physics, Savitribai Phule Pune University, Pune, India, 30 July-01 August **2015 (Poster Presentation)**
- 2) Emerging Trends in Physics (ETP-2015), Department of Physics, Anantrao Pawar Colege, Pirangut, Tal.-Mulshi, Dist. Pune. 6th -7th February **2015, (Participated)**
- 3) Radio Telescope and Its Applications at GMRT, Khodad village, Narayangaon organized by Department of Physics, Annasaheb Waghire College of Science, Arts and commerce, Otur, Tal-Junnar Dist. –Pune 2nd February **2013 (Participated)**
- 4) Raman Memorial Conference, Department of Physics, University of Pune, Pune, India, 22-23 February **2013, (Poster Presentation)**
- 5) Raman Memorial Conference, Department of Physics, University of Pune, Pune, India, 2-3 March **2012, (Poster Presentation)**
- 6) Raman Memorial Conference, Department of Physics, University of Pune, Pune, India, 26-28 February **2011, (Poster Presentation)**
- 7) National seminar on physics of material and Material based device fabrication, Department of Physics, Shivaji University Kolhapur, 17-18 February **2011 (Poster Presentation)**
- 8) international conference on light, Natational institute of Technology, kalicut, Kerala, India, 23-25 May **2011 (Oral presentation)**
- 9) Nanostructured Materials for Advanced Technology, Karmveer Bhauro Patil Mahavidyalaya, Pandharpur, Dist.- Solapur, Maharashtra, 3-4 October **2011 (Poster presentation)**
- 10) National Seminar on Nanomaterials for Devices: Characterization and Applications, Department of Physics, University of Pune and Department of Applied Physics DIAT Pune, 24-26 June **2010 (Poster Presentation)**

TECHNICAL EXPERIENCE:

Hot Wire Chemical Vapor Deposition (HW-CVD), D.C.Sputtering unit, Vacuum techniques (UHV), Microtron, Hot injection Technique, Material characterization for Structural and Optoelectronic properties.

Programming Languages: C, FORTRAN

Personal Details:

Social Reservation: S.C.

Date of Birth: 02/06/1984

ACADEMIC PROJECTS:

“MeV energy electron irradiation induced diffusion of silver in borosilicate glass” at M. Sc. level

STRENGTHS:

Sincere, Hardworking, Leadership Qualities, Good communication skills

AREA OF INTEREST

Teaching – this is the field where skills to convey knowledge comes in picture and to deliver best knowledge one has to remain at the front end of it.

REFERENCES: Available on demand.

Place: Pune.

Date: